



RELATIONSHIP OF STRESS WITH PERFORMANCE AMONG ATHLETES

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ABSTRACT

The purpose of the study was to analysis the relationship of stress with performance among athletes. The random sampling design was used. The statistical measure used in the study was 2x2 ANOVA. The subject for the data collection was selected from the colleges of district Hoshiarpur and Jalandhar, Punjab. The sample consists of 200 Male and Female subjects in the age group of 13 to 19 years studying in the colleges of Hoshiarpur and Jalandhar. They were taking part in different intercollege and Inter University level competitions being held in the session of 2017 and 2018. Subjects were randomly selected from two different levels performance from 5 sports discipline. 40 subjects were drawn from each discipline. They were further subdivided into 20 of intercollege level and 20 subjects of inter university level. The overall sample then consisted of 100 subjects of inter college level and 100 of inter university level. Sample description is presented in the following table.

KEY WORDS: Relationship, Stress and ANOVA.

INTRODUCTION:

Stress is the "wear and tear" our body experiences as we adjust to our continuously changing environment, it has physical and emotional effects on us and can create positive or negative feeling. As a positive influence, stress can help compel us to action; it can result in new awareness and an exciting new perspective. As a negative influence, it can result in feelings of distrust, rejection, anger, and depression, which in turn can lead to health problems such as headache, upset stomach, rashes, insomnia, Ulcers, High blood pressure, Heart disease and stroke.

Stress means, an imbalance. Stress occurs due to disparity between situational demand and individual's ability. Dr. Hans Selye, one of the leading authorities on the concept of stress described stress as "the rate of all wear and tear caused by life. Stress may be negative and positive. It is positive in a situation which offers an opportunity to gain something and act as a motivator for peak performance, whereas it acts as a negative force when a person faces social, physical, organizational and emotional problems. In today's World one cannot imagine life without stress on both the side that is for employees and as well as the employer.

Origin and growth of stress:

Hans selye (1920) The term stress was borrowed from physics by one of the father of stress research.

Walter (1984) He was the first person to describe the body reaction towards stress he identified stress reaction as fight or flight.

Tucker (1996) after experiencing a stress full situation hormonal level determines the mind set, depression, and energy level in the person at work.

EXPERIMENTAL DESIGN:

This is a survey type of study focused on athlete from selected discipline of sport. The dependent variable of stress and in relation to independent variables of performance and gender has been studied. The random sampling design was used. The statistical measure used in this study was 2x2 ANOVA.

Sample:

Subjects for data collection were drawn from the Hoshiarpur and Jalandhar. The sample consists of 200 Male and Female subjects in the age group of 13 to 19 years studying in the colleges of Hoshiarpur and Jalandhar. They were taking part in different intercollege and Inter university level competitions being held in the session of 2017 and 2018. Subjects were randomly selected from two different levels performance from 5 sports discipline. 40 subjects were drawn from each discipline. They were further subdivided into 20 of inter college level and 20 subjects of Inter university level. The overall sample then consisted of 100 subjects of inter college level and 100 of inter university level. Sample description is presented in the following table.

Table no. 1

Sports Discipline	Inter College level			Inter University Level			Total
		Male	Female		Male	Female	
Cricket	20	10	10	20	10	10	40
Kho Kho	20	10	10	20	10	10	40
Volleyball	20	10	10	20	10	10	40
Softball	20	10	10	20	10	10	40
Athletics	20	10	10	20	10	10	40
	100	50	50	100	50	50	200

The following variables were selected for the study

Stress:

Performance and age were taken independent variables, which were studied in relation to dependent variables, mention above.

Tools to be Used:

The following tests were administrated to the subjects;
Perceived stress scale (Dr. Reena Kaul & Bedi 2001)

PROCEDURE:

The test was administrated to the subjects in the group of 10 to 15 directions and instructions given by the author were followed the response sheet were scored as per instructions and raw data give quantified and statistically processed.

Table 1 (a): Results of 2x2 Anova of Groups Based on Performance (Inter College and Inter University) and Gender (Male and Female) and their Interaction Effect on the Variable Stress.

Source of Variance	SS	DF	MS	F value
Performance (Inter college and Inter University)	7887.60	1	7887.60	230.57**
Gender (Male and female)	35.30	1	35.30	1.05
Performance x Gender	2.45	1	2.45	0.08
Within	34.23			

*P<0.05

**P<0.01

The Table 1(a) presents results of ANOVA (2x 2 factorial designs) of groups based on performance (Inter College and Inter University) level on the variable stress. The value with regard to the performance (Inter college and Inter University) are $SS = 788.60$, $DF = 1$, $MS = 788.60$ and $F \text{ Value} = 230.57$. The F Value demonstrate that difference between Inter College and Inter University Level athletes with regard to their Performance on variable Stress is significant ($P < 0.01$)

The Statistical value with regard to group based on gender [Male and Female] are $SS = 35.30$, $DF = 1$, $MS = 35.30$ and $F = 1.05$. This shows that there was no Significant Difference between groups based on gender.

Since results in above table represented two groups each based on performance (Inter College and Inter University) and gender (Male and Female). Therefore post-hoc analysis was not necessary in tandem with the F test. However to know the Direction of difference the Mean and SD values of these samples were computed which have been presented in table no. 1.

Table 1 (b): Mean and SD Values of Groups Based on Performance (Inter College and Inter University Level) and Gender (Male and Female) on the Variable Stress

Subjects	Mean	S.D.
Performance		
Inter College	30.63	3.94
Inter University	43.19	7.25
Gender		
Male	36.52	9.22
Female	37.36	7.90

Table no. 1, present the Mean and SD Scores of Inter College level athletes on the variable stress which were 43.19 and 30.63 respectively. Difference between Inter University and Inter college level Athletes on variable stress were statistically significant ($P < 0.01$) the result Indicated That Inter University Athlete were Found significantly better on Variable Stress. The standard value demonstrates the intra group variable among subjects.

The Mean value of Male athlete was 36.52 and with SD being 9.22 and Female athlete had a Mean Value of 37.36 and $SD = 7.90$. The F value was not significant. This show that Female Athlete did not differ from Male on variable stress.

Significant differences have been found between Inter University and Inter College Level Athletes on Variable stress. The Inter University athletes were better able to cope up with stress then Inter College level athletes.

CONCLUSION:

Significant differences have been found between inter University and inter college level athletes on Variable stress. The inter university level athletes were better able to cope with stress then inter college level athletes.

No significant differences were found between groups based on gender (Male and Female) on variable stress.

Results of performance by gender interaction was not found significant

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